

Disseminate or Exploit?

Some remarks on Open Access,
merchandising information and the
future of electronic publishing

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Overview



- 'Open Access' and the 'Serials Crisis'
- Exploitation based publication economy
 - I: ,Closed Access'
 - II: Open Access 'Green'
 - III: Open Access 'Gold'
- Exploitation vs. Dissemination: Discussion of a First Set of Statements
- A glimpse beyond: what comes after „digital publishing“?
- Back from Future: Service potential in a dissemination based publishing model
- Concluding set of statements

The Birth of 'Open Access' from the Spirit of the 'Serials Crisis'









- Serials crisis: abnormal pricing increases and monopolistic position of some suppliers
- Caused libraries to position themselves as defenders of OA (mainly on the 'golden' side) ...
- ... and also led to the idea of OA as some kind of low cost alternative for traditional commercial publishing, causing negative connotations we are still struggling with:
 - „low value“
 - „second class“,
 - „low quality“
- Publication economy fatally and prominently assisted at the birth of OA!
- This fact (among others) has almost completely excluded large parts of scholarly culture in the humanities from the OA debate! They are not considered systematically in this contribution either.



Publication Economy Based on Access Rights Exploitation I: 'Closed Access'



- Scientist (mostly paid from public funds) authors contribution and transfers **exploitation rights** to publisher. 
- **Quality** is assured via reviewing contributions by scientific 'peers' – most of these again paid from public funds.  
- Libraries use public funds again to buy **access rights**   
- Already in the printing period the **revenues** that could be generated from this model often were disproportionate with relation to the **costs of handling and production**.
- This relation tends to be absurd in the digital publishing scenario, given the dramatic decrease (or obsolescence) of reproduction and communication costs.
- Even with new cost factors coming in (e. g. marketing) this paradigm remains **a very expensive outsourcing model**.



Publication Economy Based on Access Rights Exploitation I: 'Closed Access'



- The model is effective only as long as scientific information is conceived as a **commercial good** and can be merchandised in such terms.
- The exploitation model is sustainable under three conditions only:
 - it must be operated **expansively** - and as a consequence;
 - the point within the sedimentation continuum of scientific information from which on this information can reasonably be considered as a commercial good is **constantly pushed further**;
 - principles of commercial merchandising are established in the realm of scientific information hitherto subject to laws of free exchange.
- Complements of the exploitation model are methods for **measuring and ranking scientific impact**.
- In this perspective, these simply are sophisticated instruments of **scarcifying**: the resource scarcified here is 'reputation'
- The potential of this model in terms of commercial **exploitation** is undisputed, its potential in terms of **dissemination** is rather dubious



Publication Economy Based on Access Rights Exploitation II: Open Access 'Green'



- Authors make articles already published elsewhere publicly available via private or institutional repositories.
- The objective is the **maximum dissemination** of scientific publications and thus the compensation of a negative side-effect of the traditional commercial publication model.
- Does not change the fundamental principles of traditional publication economy.
- OA Green may even be undermining this economy without building up an alternative model.
- => OA 'Green' is **fundamentally parasitic** and for that very reason probably cannot be made sustainable.
- It remains an open question to what degree the parasite is actually harming the host animal.

Publication Economy Based on Access Rights Exploitation III: Open Access 'Gold'



- Open Access Publication of journals with diversified strategies of refinancing
 - 'Author pays'
 - Public Library of Science (PLOS) charges between 1.350 (PLOS ONE) and 2.500 \$ (PLOS Biology) .
 - BioMed Central charges between 760 and 2440 \$ per article.
 - Atmospheric Chemistry and Physics (ACP) charges between 23 and 38 € per page processed depending on actual effort.
 - Springer (OpenChoice) charges 3.000 \$ per article.
 - Subsidies (instead of outsourcing)
 - Value added services (marginal for the time being)
- Is not much more than a redirection of financial streams within the exploitation paradigm ...
- ... and may not be really successful in itself for that very reason!



Exploitation vs. Dissemination: 6 Statements ...



- (1) There is a borderline between the segment of digital scientific publishing in which 'Open Access' makes sense and is appropriate and another segment in which this doesn't seem to be the case given the current market situation.
- (2) There is a state in the sedimentation process of knowledge beyond which scientific information can appropriately be merchandised as a commercial good.
- (3) This state is typically reached once scientific knowledge can be published as a commercially successful textbook.
- (4) Before this state is reached, free circulation and dissemination of scientific information must be the primary goal.
- (5) Before this state is reached the business logic of scientific publishing should be „not for profit“.
- (6) Once this state is reached it may be appropriate to seek benefit in the publishing process.

... and their Immediate Relativization



- The issue of the appropriateness of the 'Open Access' model thus is taken to a different level: to what degree the creation of **free an efficient circulation streams** for scientific information is a **task to be dealt with by the scientific community** resp. from what point on this activity (f. a. k. 'publication') is a task conferred to **external service providers**.
- The contradiction between the exploitation and the dissemination model thus is a strong one under certain circumstances only.
- And above all this contradiction and all the associated disputes remain **part of the exploitation based publication economy!**
- This economy in turn is entirely built around a procedural model of scientific 'publication' that itself is **based upon a number of eroding components**.

A glimpse beyond: erosion ...



- Decreasing functional determination by traditional cultural techniques
- Disintegration of the linear / circular functional paradigm
- Decomposition of the monolithic document notion in hypertext and RDF triple based environments: “from documents to data and information” (Berners-Lee, Hall & Shadbolt (2006))
- → this afternoon!

... and back from Future: Value Adding Services in a Dissemination Paradigm (1)



- We may still remain in the **digital emulation of the traditional publishing paradigm** for some (limited) time.
- The way to go in that intermediate period may be to **add value to freely accessible content in a dissemination centered approach**. Such services can be imagined in different categories and most of them already exist:
- Quality assurance
 - **Annotation services**: community annotation and processing of this annotation as a basis for quality management
 - **Multilevel reviewing**: distinction of multiple quality levels without a need to reduce to excessively binary decisions
 - Detection of and dealing with **plagiarism**
 - Automated **long-term availability checking**: does a given submission comply to a number of criteria for long term archiving and usability?

Value Adding Services in a Dissemination Paradigm (2)



- 'Marketing'
 - Integration in **meta-retrieval services** improvement of search engine ranking
 - Customer **alerting and personalisation** services
 - **Impact evaluation** on author and publication basis
- Interaction and Social Dynamics (2.0)
 - **User annotation** services
 - **Living documents**: dynamically keep publications up to date but preserve referencing integrity by advanced versioning
 - **End user interaction and communication**: community building around publications including public community workspaces

Value Adding Services in a Dissemination Paradigm (3)



- Natural Language Processing (NLP) and Semantic Web based Services
 - **Rich domain specific tagging** using MathML, OpenMath, CML, PhysML and the like as well as automated tagging consistency checks
 - Citation **linking**, citation **categorisation** and link based enrichment
 - **Named entity recognition, categorisation** and **automated contextualisation**: LOD-embedding for persons, institutions and concepts
 - Domain specific **ontology management**
 - **Semantic extraction and aggregation** services on publication level: automated abstracting

Value Adding Services in a Dissemination Paradigm (4)



- Aggregation and Output
 - **Personalised printing**
 - **Cross-publication aggregation** and **semantic interpolation**
 - Cross-publication reuse of **primary data** and **processing algorithms**
- Essential Prerequisites
 - **Open access**: freely accessible content! Access barriers are killing ...
 - **Open technology**: proprietary formats and access mechanisms are killing ...
 - **Use existing technology and standards**: not much need to do basic technical developments or standards building!

Which Expertise and Players in a Dissemination Paradigm?



- Expertise and Skills
 - **W3C based document technology** (document modelling and processing using XML, XML Schema, XSLT, Microformats etc.)
 - **Web 2.0 based technology** (interaction, social impact evaluation, ...)
 - **W3C based Semantic Web technology** (extraction, aggregation and inferencing using RDF, RDF/S, SPARQL, OWL, SWRL and the like)
 - **Network based marketing skills**
- Players
 - University presses???
 - Commercial publishers?
 - Common spin-offs from both sectors
- **Less of them** in any case!

7 Concluding Statements and 1 Request



- (1) Neither OA 'Green' nor OA 'Gold' actually abandon the exploitation based paradigm of publication economics.
- (2) The 'green' path is essentially parasitic.
- (3) The 'golden' path will not be very successful as long as it only redirects financial streams.
- (4) The 'golden' path could grow into a successful alternative once it is durably associated with quality and reputation – at least as long as the document based publication paradigm still holds!
- (5) Chances could be strongly increased adding services from a 'dissemination' paradigma to the golden' approach.
- (6) This transformation is possible based on new alliances and business models – with (significantly) less players remaining on all sides!
- (7) On the medium to long term we need to seriously reconsider the notion of 'publishing' in a network based digital context. De-constructing the 'document' concept is key in this respect.
- (8) And please do not forget the humanities disciplines ...!